AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-40. (Canceled)

41. (Currently Amended) A method of determining the location of a mobile terminal in a given area, the method comprising the steps of:

including said mobile terminal both in a satellite-based positioning system and in a cellular communications system, whereby said mobile terminal is adapted to receive satellite signals from said satellite-based system and to be covered by at least one cell of said cellular communications system; and

determining at least approximately the coordinates of said mobile terminal based on both satellite signals received from said satellite-based system and information related to said cellular communications system, wherein said coordinates include an altitude coordinate, wherein the step of determining at least approximately the coordinates of said mobile terminal further comprises:

identifying, in said cellular communications system, a plurality of base stations adjacent to said mobile terminal, each said adjacent base station having a respective altitude coordinate;

deriving an estimate of said altitude coordinate for said mobile terminal, wherein deriving the estimate of said altitude coordinate

comprises one of i) determining a minimum of said altitude coordinates for said adjacent base stations and using said minimum value as said estimate of said altitude coordinate; and ii) determining an average value for said respective altitude coordinates of the plurality of adjacent base stations and using said average value as said estimate of the altitude coordinate; and

determining the location coordinates of said mobile terminal using the estimate of said altitude coordinate and information provided by the satellite-based system, wherein the step of determining the location coordinates further comprises;

determining a first set of values for said location coordinates on the basis of said information related to said cellular communications system;

acquiring said satellite signals from said satellite-based system and deriving therefrom an area likely to include the mobile terminal;

providing a new set of values of said location coordinates by:

i) effecting, based on said information related to said cellular communications system, a bi-dimensional positioning of said mobile terminal within said area likely to include the mobile terminal; and

ii) accessing a geographical data base and associating to the bi-dimensional positioning coordinates of said

mobile terminal within said area a corresponding value for said altitude coordinate;

determining the distance between said new set of values of said location coordinates and said first set of values of said location coordinates;

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, starting an iterative process wherein said area likely to include the mobile terminal is re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude coordinate and said steps of affecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate are repeated, wherein said steps of bi-dimensional positioning are effected over said re-defined area.

42-45. (Canceled).

46. (Previously Presented) The method of claim 41, comprising the steps of:

performing power measurements providing, for each said adjacent base station, a respective power value for said mobile terminal; and

determining said average value as a weighted average of said respective altitude coordinates values, the weighting being a function of said power values determined for each said adjacent base station.

47. (Previously Presented) The method of claim 41, wherein said positioning coordinates are determined in an iterative manner by subsequent location steps, a new refined estimate of said altitude coordinate being used at each step in said iterative process.

48. (Previously Presented) The method of claim 41, comprising the steps of:

providing an approximate bi-dimensional positioning of said terminal on the basis of said information related to said cellular communications system; and

determining said positioning coordinates of said mobile terminal on the basis of said satellite signals by exploiting said bi-dimensional positioning and said estimate of said altitude coordinate.

49. (Previously Presented) The method of claim 48, wherein said determining step comprises:

initially determining a search area for positioning coordinates of said mobile terminal based on said satellite signals and said estimate of said altitude coordinate; and

subsequently identifying said positioning coordinates within said search area based on information related to said cellular communications system.

50. (Previously Presented) The method of claim 49, comprising the steps of:

defining the search area for said positioning coordinates in the form of a hyperbolic set of points; and

determining said positioning coordinates within said hyperbolic set of points by using said information related to said cellular communications system.

51-52. (Canceled).

53. (Currently Amended) The method of claim **[[**52**]]** 41, wherein said iterative process comprises the steps of:

determining the distance between the sets of values of said location coordinates as available before and after the current iteration step; and

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, running a further iteration step wherein said area likely to include the mobile terminal is further re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude coordinate and said steps of effecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said

altitude coordinate and are further repeated, wherein said step of bi-dimensional positioning is effected over said further re-defined area.

54. (Previously Presented) The method of claim 41, comprising the step of determining at least approximately said coordinates based on satellite signals received from less than three satellites of said satellite-based system.

55. (Currently Amended) An apparatus comprising:

a first receiver adapted to receive satellite signals transmitted in a satellite-based system;

a second receiver adapted to receive signals transmitted in at least one cell of a cellular communications system; **[[and]]**

at least one processing module configured for determining at least approximately the coordinates of a mobile terminal based on both satellite signals received from said satellite-based system and information related to said cellular communications system, wherein said coordinates include an altitude coordinate and said at least one processing module being configured for:

identifying, in said cellular communications system, a plurality of base stations adjacent to said mobile terminal, each said adjacent base station having a respective altitude coordinate;

deriving an estimate of said altitude coordinate for said mobile terminal, wherein deriving the estimate of said altitude coordinate comprises one of i) determining a minimum of said altitude

coordinates for said adjacent base stations and using said minimum value as said estimate of said altitude coordinate; and ii) determining an average value for said respective altitude coordinates of the plurality of adjacent base stations and using said average value as said estimate of the altitude coordinate; and

determining the coordinates of said mobile terminal using the estimate of said altitude coordinate and information provided by the satellite-based system;

a geographical data base including data base items associated with a given set of bi-dimensional positioning coordinates of said mobile terminal in said area and corresponding values for said altitude coordinate, said at least one processing module being configured for accessing said geographical data base whereby said positioning coordinates as at least approximately determined based on said satellite signals are refined via the information derived from said geographical data base;

at least one module configured for:

determining a first set of values for said location coordinates on the basis of said information related to said cellular communications system;

acquiring said satellite signals from said satellite-based system and deriving therefrom an area likely to include the mobile terminal; and

providing a new set of values of said location coordinates by:

i) effecting, based on said information related to said cellular communications system, a bi-dimensional positioning of said mobile terminal within said area likely to include the mobile terminal; and

ii) accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate; and

at least one module configured for:

determining the distance between said new set of values of said location coordinates and said first set of values for said location coordinates;

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, starting an iterative process wherein said area likely to include the mobile terminal is re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude coordinate and said steps of effecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude

coordinate and are repeated, wherein said steps of bi-dimensional positioning is effected over said re-defined area.

56-58. (Canceled).

59. (Previously Presented) The apparatus of claim 55, wherein said at least one module is configured for performing power measurements providing, for each said adjacent base station, a respective power value for said mobile terminal, and determining said average value as a weighted average of said respective altitude coordinates values, the weighting being a function of said power values determined for each said adjacent base station.

60. (Previously Presented) The apparatus of claim 55, comprising at least one module configured for determining said positioning coordinates in an iterative process by subsequent location steps, a new refined estimate of said altitude coordinate being used at each step in said iterative process.

61. (Previously Presented) The apparatus of claim 55, comprising at least one module configured for:

providing an approximate bi-dimensional positioning of said terminal on the basis of said information related to said cellular communications system; and

determining said positioning coordinates of said mobile terminal on the basis of said satellite signals by exploiting said bi-dimensional positioning and said estimate of said altitude coordinate.

62. (Previously Presented) The apparatus of claim 61, comprising at least one module configured for:

initially determining a search area for positioning coordinates of said mobile terminal based on said satellite signals and said estimate of said altitude coordinate; and

subsequently identifying said positioning coordinates within said search area based on information related to said cellular communications system.

63. (Previously Presented) The apparatus of claim 62, comprising at least one module configured for:

defining the search area for said positioning coordinates in the form of a hyperbolic set of points; and

determining said positioning coordinates within said hyperbolic set of points by using said information related to said cellular communications system.

64-65. (Canceled).

66. (Currently Amended) The apparatus of claim **[[**65**]]** 55, comprising at least one module configured for running said iterative process by:

determining the distance between the sets of values of said location coordinates as available before and after the current iteration step; and

comparing said distance with a threshold indicative of the degree of accuracy pursued in the location action; and

if said distance is higher than said threshold, running a further iteration step wherein said area likely to include the mobile terminal is further re-defined on the basis of said satellite signals from said satellite-based system and the latest value available for said altitude coordinate and said steps of effecting said bi-dimensional positioning, accessing said geographical data base and associating to the bi-dimensional positioning coordinates of said mobile terminal within said area a corresponding value for said altitude coordinate are further repeated, wherein said step of bi-dimensional positioning is effected over said further re-defined area.

67-82. (Canceled).

83. (Previously Presented) The method of claim 41, further comprising the steps of:

determining at least one approximate search area using the estimate of said altitude coordinate and information provided by the satellite-based system; and

identifying the coordinates of said mobile terminal in the at least one approximate search area.

84. (Previously Presented) The apparatus of claim 55, wherein said at least one processing module is further configured for:

determining at least one approximate search area using the estimate of said altitude coordinate and information provided by the satellite-based system; and

identifying the coordinates of said mobile terminal in the at least one approximate search area.

85. (Canceled).